REMARKS

Claims 1-35 are pending. Claims 1, 2, and 11 have been amended and new claims 20-35 have been added to recite additional features of the embodiments disclosed in the specification.

Reconsideration of the application is respectfully requested for the following reasons.

In the Office Action, claims 1-19 were rejected under 35 USC § 103(a) for being obvious in view of a combination of the Cohen-Solal and Suh patent publications. This rejection is traversed for the following reasons.

Claim 1 recites a microcomputer which controls the first video processor and the second video processor, so that at least one of the main picture data or the sub-picture data is at least partially outputted "in accordance with a shape of the sub-picture determined by a user." (Emphasis added). The cited references do not teach or suggest these features.

The Cohen-Solal publication discloses a television having a processor 120 which performs a picture-in-picture (PIP) function. The processor allows a user to control the size and position of the PIP based on commands received from a remote controller. (See Paragraphs [0024] - [0029]). The Cohen-Solal publication, however, does not teach or suggest allowing a user to determine the shape of the PIP, e.g., in Cohen-Solal the PIP is always displayed as a square or rectangle. See Figures 2A and 2B.

In spite of these disclosures, the Examiner essentially took the position that the size and position of a PIP is the same as the shape of a PIP. (See page 2 of the Office Action). Applicants respectfully disagree. During examination, a patent examiner is permitted to give claim terms their broadest reasonable interpretation not inconsistent with the specification. See MPEP § 2111. The specification clearly differentiates between the size and position of a PIP and its shape. Compare Paragraph [0029] to Paragraph [0038] in the specification.

Moreover, those skilled in the art would consider the shape of a PIP to be different from its position or size. For example, the word "shape" is defined as the specific form of an outline of an object. In contrast, the word "size" refers to its dimensions and "position" refers to its location. See www.dictionary.com. Accordingly, it is respectfully submitted that the "shape" of a PIP as recited in claim 1 cannot properly be said to be synonymous with its size or position.

Moreover, under the doctrine of claim differentiation and the rules for proper dependent claims as set forth in 35 USC § 112, fourth paragraph, the size or position of a PIP cannot be regarded as being synonymous with its "shape" because these size/position features are recited in dependent claim 5.

Because the Cohen-Solal publication only allows a user determine the size or position of a PIP and not its shape, it is respectfully submitted that the Cohen-Solal publication cannot be relied on to supply the recitation of a microcomputer which controls the first video processor and the second video processor, so that at least one of the main picture data or the sub-picture

data is at least partially outputted "in accordance with a shape of the sub-picture determined by a user" as recited in claim 1.

The Suh publication was cited for its disclosure of a processor and microcomputer for controlling video signals. The Suh publication, however, does not teach or suggest the features of claim 1 missing from the Cohen-Solal publication.

In rejecting the claims, the Examiner further relied on the Janevski publication (U.S. Patent Publication 2002/0140861). The Janevski publication discloses a television which changes the shape of a PIP window. However, unlike claim 1, the Janevski television does not allow a user to determine the PIP shape, as recited in claim 1. Rather, microprocessor 40 automatically changes the shape of the PIP window based on the output of an object/text detector 50, i.e., based on the output of detector 50 the microprocessor selects a shape of the PIP that will least obscure the main picture. The user is never given the option to select the shape of the PIP. (See Paragraphs [0024] and [0027]).

Based on the foregoing differences, it is respectfully submitted that claim 1 is allowable over the Cohen-Solal and Suh publications, whether taken alone or in combination with the Janevski publication.

Claim 2 recites that the microcomputer provides the user with "a sub-picture setting menu for allowing the user to select or modify the sub-picture shape." These features are not taught or suggested by the cited references, whether taken alone or in combination. That is, the

Cohen-Solal television provides allows a user to change a size or position of a PIP, but this reference does not teach or suggest providing a menu which allows a user to select or modify the shape of the PIP. The Janevski publication is also deficient in this respect, as it discloses automatically setting the shape of a PIP window without receiving any input from the user.

Claim 3 recites that "the sub-picture setting menu includes a plurality of selectable sample shapes." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 4 recites that "the sub-picture setting menu further includes a selectable option for creating and adding new sub-picture sample shapes based on the user's preference." These features are not taught or suggested by the cited references, whether taken alone or in combination. In terms of the creating function, the Examiner attempted to take Official Notice of these features by relying on the Janevski publication.

In order to properly take Official Notice of a feature in a claim, the feature must be capable of instant and unquestionable demonstration as being well known so as to defy dispute. (See MPEP § 2144.03). Applicants submit that the features of allowing a user to **create** his own sub-picture shape and to add new sub-picture sample shapes was not capable of instant and unquestionable demonstration as being well known so as to defy dispute at the time the claimed invention was made. Moreover, Janevski cannot be relied on for this showing because it only discloses automatically selecting a PIP shape without any direction whatsoever from a user.

Claim 11 is an independent claim that recites features similar to those which patentably distinguish claim 1 from the cited references, i.e., "selecting or modifying a sub-picture shape determined by a user" and "outputting at least one of the main picture data and the sub-picture data partially depending upon the sub-picture shape selected or modified by the user." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Accordingly, it is respectfully submitted that claim 11 is allowable and that its dependent claims are allowable, not only by virtue of their dependency from claim 11 but also based on the features separately recited therein.

New claims 20-35 have been added to the application.

Claim 20 recites that the shape determined by the user is a geometric shape different from a square or rectangle. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 21 recites that the geometric shape is one of a heart, a diamond, circle, or a triangle. These features are not taught or suggested by the cited references, whether taken alone or in combination. That is, while the Janevski publication discloses trapezoidal and other shapes, Janevski does not teach or suggest that such shapes may be determined by a user as indicated in base claim 1. Accordingly, it is respectfully submitted that claim 21 is allowable, not only by virtue of the features in claim 1 but also based on the features separately recited therein.

Claim 22 recites that the geometric shape is a new shape created by the user. None of the cited references allow a user to specify a new shape. Rather, the cited references only disclose displaying PIPs with in windows with pre-stored shapes.

Claim 23 recites that the new shape is different from information indicating a predetermined shape stored in the display device. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 24 recites that the microcomputer "receives information from the user setting a position of one or more angular points of the new shape" and "outputs at least a portion of the sub-picture data based on the one or more angular points set by the user." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 25 recites that "the microcomputer rotates an orientation of a shape pre-stored in the display device to be used in outputting at least a portion of the sub-picture data." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 26 recites that the microcomputer "receives information from the user modifying information indicative of a pre-stored shape to be used in outputting at least a portion of the sub-picture data, wherein said modification includes rotating an orientation of the pre-stored shape." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 27 recites that the microcomputer "receives information from the user modifying information indicative of a pre-stored shape to be used in outputting at least a portion of the sub-picture data, wherein said information is pixel information." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 28 recites that "the pixel information includes one or more pixel addresses set by the user." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 29 recites "a memory to store information indicative of the new shape created by the user." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 30 recites that "the microcomputer displays information indicative of the new shape created by the user in a menu with information indicative of other shapes." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 31 recites that "the microcomputer receives information from the user indicating a number of sub-picture data to be output in separate screen areas of the display device with the main picture, wherein said number is greater than or equal to two and wherein the sub-picture data output in each of the screen areas corresponds to different video information." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 32 recites that "the microcomputer outputs the sub-picture data in a first screen area having a first shape, wherein the first screen area is included in a second screen area having a second shape different from the first shape, the main picture data at least partially output outside of the second screen area." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 33 recites that "the first shape corresponds to the shape of the sub-picture determined by the user." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 34 recites that "the microcomputer outputs the sub-picture data in a first screen area having a first shape, wherein the first screen area is included in a second screen area having a second shape different from the first shape, the main picture data at least partially output between the first and second screen areas and also outside of the second screen area." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 35 recites that "the first shape corresponds to the shape of the sub-picture determined by the user." These features are not taught or suggested by the cited references, whether taken alone or in combination.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and timely allowance of the application are respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

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